

REMARKS

Fig. 2 has been amended per the request of the Examiner. Attached hereto are a revised set of formal patent drawings that should replace any previously filed formal patent drawings.

Claims 1, 2, 7-9, 13-15 and 20 have been rejected under 35 U.S.C. 102(e) as being anticipated by commonly assigned U.S. Patent No.: US 6,219,751 US (Hodges). This rejection is respectfully disagreed with, and is traversed below.

It is first noted that claims 3-6, 10-12 and 16-19 were objected to. In response, claims 3, 5, 10, 12, 16 and 18 have each been rewritten in independent form to include subject matter based on the subject matter found in their respective base claims, and should thus be allowable, along with their respective dependent claims 4, 6, 11, 17 and 19.

Also, a voluntary, merely clarifying amendment was made to claim 8 to correct the antecedent basis of "data unit". This amendment was not made for a reason related to patentability, and the full range of equivalents for all of the elements of claim 8 should remain intact.

Turning now to the rejection under 35 U.S.C. 102(e), the Examiner takes the position that since Hodges discloses the use of count, key and data (CKD) and Fixed Block Architecture (FBA) data, that Hodges anticipates the claimed invention.

First, it is not admitted that Hodges teaches a storage subsystem in Fig. 2A, element 211, that is capable of storing data in either a first format or a second format. Note that at col. 5, lines 56-59, Hodges discusses with respect to Fig. 2A the typical layout of CKD tracks and parity images "over the disk drives", which are assumed to be the disk drives 307-313 (not numbered as such in Fig. 2A). As such, it would appear that the four attached disk drives in Hodges store data in only the CKD format.

Second, col. 5, lines 31-40, states only that:

"Functionally, a device attachment unit 201 provides electrical and signal coupling between the CPU 200 and one or more RAID 5 drawers. As tracks are staged and destaged through this interface, they are converted from variable-length CKD format to fixed-block length FBA format by the ancillary processors 203. In this regard, drawer cache 205 is the primary assembly and disassembly point for the blocking and reblocking of data, the computation of a parity block, and the reconstruction of blocks from an unavailable array disk drive." (emphasis added)

Note that these functions are occurring in the cache drawer 205, and the device attachment unit 201 performs the CKD-FBA conversion function which, based on the description of the CKD tracks at lines 56-59 of col. 5, would appear to convert data from or to the CKD format depending on whether data was being read from or written to, respectively, the disk drives.

In any event, claim 1 has been amended in a merely clarifying manner, as has claim 14, to specifically state (as in claim 1) that:

"based on the value of the data length that is received at the computer, determining whether said data unit is in said first format or in said second format and preparing for receipt of said data unit, in said first format or said second format, having said data length". (emphasis added)

Support for this amendment can be found in the specification at least at page 10, lines 12-17. No new matter is added.

Independent claim 8, as filed, recites in part that a computer includes:

"means for determining whether said data unit is in said first format or said second format based on said data length;

means for receiving said data unit, in said first format or said second format, having said data length".

It is respectfully submitted that the commonly assigned Hodges U.S. Patent does not contain disclosure that would either anticipate or render obvious the claimed subject matter, as the

Examiner has not established that a computer in Hodges would function in the manner claimed in the independent claims 1, 8 and 14, as filed and as now clarified by amendment. In that claims 1, 8 and 14 are clearly patentable over Hodges, then claims 2, 7, 9, 13, 15 and 20 are also patentable over Hodges.

In that the amendment made to claims 1 and 14 is deemed to be merely a clarification of matter present when the claims were filed, the amendment is not considered to be one made for a reason related to patentability, and the full range of equivalents for all of the elements of claims 1 and 14 should remain intact.

The Examiner is respectfully requested to reconsider and remove the rejection of claims 1, 2, 7-9, 13-15 and 20 under 35 U.S.C. 102(e) as being anticipated by Hodges.

As a part of this response claims 21-26 are newly added. These claims are similar in some respects to claims 8-13, and are also deemed to be allowable over Hodges.

Appended to this response is a Supplemental IDS, a PTO-1449, a copy of US 5,909,692 (Yanai et al.), and the fee specified by 37 C.F.R. 1.17(p). The undersigned attorney became aware of Yanai et al. during the preparation of this response, and is making same of record at least for the reason that Yanai et al. disclose "an apparatus and method for converting CKD formatted data records to FBA formatted disk drives and for building and compressing the "count" portion of the CKD data formatted record into a record locator table" (Abstract). Further by example, in col. 8, line 59, to col. 9, line 8, Yanai et al. disclose:

"The present method for mapping CKD formatted data into fixed block disk drives is, in part, based on the recognition that under usual conditions, a sequence of CKD formatted records will include the URN portion of the count identifying the record number from among a number of sequentially numbered data records of the same length. Further, the records are generally stored on the same device cylinder and accessed by the same device head. Additionally, the key length will generally be zero or some predetermined generally constant number. Thus, the method for disk mapping 100, FIG. 6 of the present invention includes establishing the profile of an expected record, step 110. In the preferred

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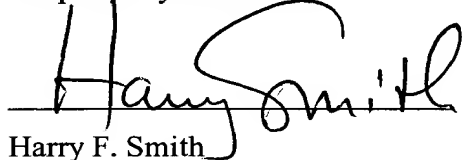
embodiment, the expected record is established with the count CCHH code as the physical cylinder and head identification, as well as the key length (K_1)=0, data length (D_1)=8 and the "R" byte of the count assigned as record number (n)=0. Further, the record flags are set to 00."

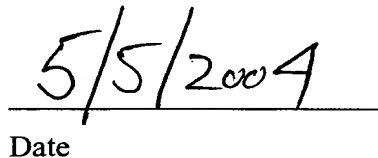
Note also that, by example, col. 9, line 37, to col. 10, line 29, refers to a comparison of data lengths of CKD records, but in the context of comparisons made to a pattern table.

The technique of Yanai et al. is not seen to expressly disclose or suggest the claimed subject matter.

An early notification of the allowance of claims 1-26 is earnestly solicited.

Respectfully submitted:


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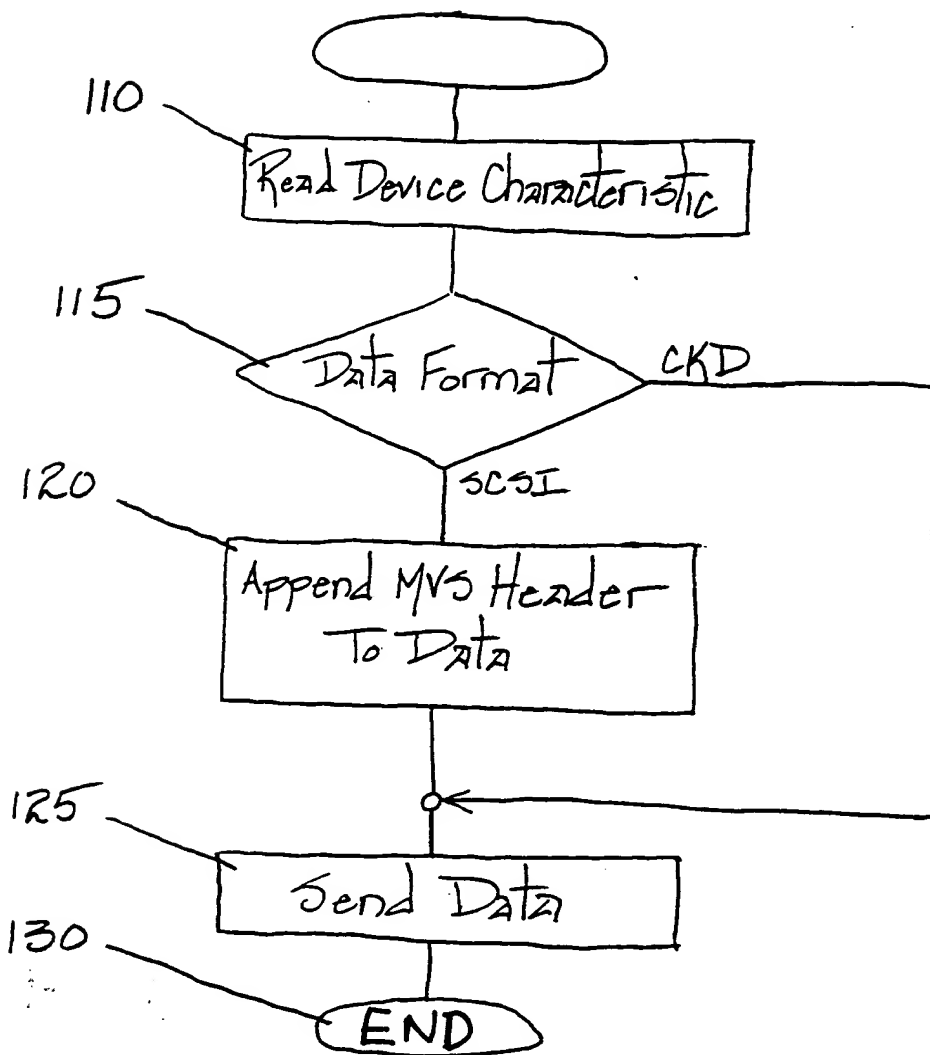


Fig. 2